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ABSTRACT

Many studies of the reasons people select teaching as a career have used quantitative instruments featuring a checklist of reasons one might enter teaching to which subjects respond using a checklist or a continuously scaled Likert format. In this study, results of an effort to establish the construct validity of such an instrument are reported. A 58-item instrument was developed based on previous instruments and on ideas germane to theories of career motivation found in the literature. The items were initially categorized according to eight career-motivation orientations found in the literature. The subjects (n=255) included both teacher education students and inservice teachers. Responses were factor analyzed using both oblique and orthogonal rotations. Several factor solutions were attempted, and a six-factor orthogonal solution deemed the most interpretable. The eight proposed motivational orientations were roughly evident in the interpreted factors. Suggestions as to how the instrument may be substantively applied in teacher education research are offered. An appendix lists the items in the instrument. (Contains 10 references.) (Author/SLD)

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CONSTRUCT VALIDATION OF AN INSTRUMENT MEASURING TEACHER CAREER MOTIVATIONS

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ABSTRACT

Many researchers have attempted to determine why people select teaching as a career. Studies of this type are important as they yield data useful to the recruitment of teachers. Many of these studies have used quantitative instruments featuring lists of reasons one might enter teaching to which subjects respond using a checklist or continuously-scaled Likert format. Although such instruments have been used for some 80 years, there have been relatively few attempts to validate the instruments. In the present study, the authors report results of an effort to establish the construct validity of such an instrument. A 58-item instrument was developed based on other previous instruments and on ideas germane to theories of career motivation found in the literature. The items were initially categorized according to eight career motivation orientations found in the literature. The subjects (n = 255) included both teacher education students and inservice teachers. Responses were factor analyzed using both oblique and orthogonal rotations. Several factor solutions were attempted, with a six-factor orthogonal solution deemed the most interpretable. The eight proposed motivational orientations were roughly evident in the interpreted factors. Suggestions as to how the instrument may be substantively applied in teacher education research are offered.

CONSTRUCT VALIDATION OF AN INSTRUMENT MEASURING TEACHER CAREER MOTIVATIONS

Most educators would agree that classroom teaching is rewarding, although definitely not easy, work (Newman, 1990). Moreover, it has been noted that such things as poor salary, lack of opportunity for advancement, and perceived monotony of teachers' work serve as factors which detract persons from becoming teachers (Book, Freeman, & Brousseau, 1985). Nevertheless, the teaching profession remains appealing to many individuals for a number of reasons, many of which are often overlooked by the casual observer:

> The testimony of classroom teachers makes it clear that the occupation possesses potent attractors. Teaching is special in at least two respects: few occupations can offer similar opportunities for protracted contact with normal children, and few can provide such compatible work schedules. The definition of teaching as service (the aura of its mission) sets it apart from many other ways to make a living. Schools instill interests and attitudes which help recruit the next generation of faculty members. Although muted, material benefits play their part in drawing persons into the occupation. (Lortie, 1975, pp. 32-33)

As noted by Daniel and Ferrell (1991), the majority of previous studies of teachers' career motivation have been descriptive in nature. These studies have generally used survey or interview procedures in which respondents are asked to indicate why they have chosen teaching. The result of these studies has been a proliferation of hierarchically-arranged lists of reasons for entering teaching. A comprehensive review of studies of this type will not be attempted here, although reviews of this nature are provided elsewhere (e.g., Cruickshank,

1990; Daniel & Ferrell, 1991). While many of these studies have lacked complexity in research design, their findings have suggested the existence of certain dominant themes relative to the career motivation of teachers across different samples over time. Daniel and Ferrell (1991) identified the following ten reasons as being among those most commonly listed by teachers across a variety of studies ranging in time from the 1920s through the 1980s:

(a) fondness for children/youth; desire to work with children/youth

(b) opportunity for adequate income and/or job security

(c) favorable working conditions (i.e., good hours, long vacations, desirable personal relations)

(d) interest in a particular subject

(e) a lifelong opportunity for learning

(f) opportunity to use teacher training as a stepping stone to other occupational fields

(g) opportunity for service to mankind

(h) influence of a relative, teacher, or other significant individual

(i) interest in education

(j) opportunity for a creative or challenging career

Beginning in the 1960's, researchers began to study teacher career motivation from a more thematic point of view. These researchers attempted to go beyond mere factual statements to propose deeper motivational themes dominant in individuals' career choices. As noted by Daniel and Ferrell (1991, p. 12), this method of inquiry allows the researcher

> . . . to determine why certain factors are deemed important in career choice (Haubrich, 1960; Lefevre, 1965), or to determine which factors are most influential in the staying power of those who select a career (Murnane, 1987), or to cluster together such factors into larger conceptual categories (Lortie, 1975).

A major effort toward building a model to explain why people enter teaching is provided by Lortie (1975). After examining responses from numerous teachers across several samples as to why they were drawn to teaching, Lortie (1975--Chapter 2) proposed five thematic categories of "attractors" that orient individuals to select teaching as a career, namely an interpersonal theme (i.e., a desire to work with people), a service theme (i.e., an altruistic desire to serve society), a continuation theme (i.e., a fondness for the school environment and, thus, a desire to maintain a relationship with schooling), a material benefits theme, and a time compatibility theme (i.e., an affinity for the work schedule afforded teachers).

Joseph and Green (1986) added to the work of Lortie by suggesting three additional motivational themes, namely the stimulation theme (i.e., a view of teaching as a chance to become involved in creative and rewarding work), the influence of others theme (i.e., a motivation to teach based on desires of teachers, parents, or other influential persons in one's life), and the psychological theme (i.e., a desire for psychological security, such as a desire to be in authority or to receive the love of children).

Daniel, Slick, and Gupton (1992) analyzed the written responses of 115 student teachers at a given university to a series of open-ended questions regarding their motivations for entering teaching. Using the eight Lortie (1975) and Joseph and Green (1986)

motivational themes as a framework for categorizing the content of the responses, the researchers found that all eight of the motivational themes were evident in the subjects' responses, with the interpersonal, service, continuation, stimulation, and significant other themes most dominant. These findings suggest that these themes indeed present an appropriate for studying teachers' career motivations and are therefore worthy of additional attention.

In an attempt to measure teacher career motivations across the eight themes using survey procedures, Daniel and Ferrell (1991) developed a 58-item instrument, titled "Orientations for Teaching Survey" (OTS), which was designed to measure individuals' orientations for entering the teaching profession. Items were derived from previous research on teacher career motivation, and each item expressed a different rationale for individuals' motivation for entering teaching. The items were initially categorized according to the eight aforementioned career motivation orientations found in the literature. Using Q-methodology, the researchers showed that the instrument could be effectively used with both preservice and inservice teachers to identify clusters of persons relative to their motivations for entering teaching. Item factor scores were then used to determine those items that were most influential in defining the various identified clusters of persons. Results indicated the viability of at least six of the eight motivational themes proposed by Lortie (1975) and Joseph and Green (1986), including the service, interpersonal, material benefits, time compatibility, stimulation, and security motivational themes. Despite these promising results suggesting the usefulness of the OTS, no clear evidence of the construct validity of the instrument is currently available.

Purpose

Considering the need for further research to substantiate the construct validity of the Orientations for Teaching Survey, the purpose of the present study was to investigate the factor structure of the instrument using responses gathered from both teacher education students and inservice teachers. Exploratory principal components factor analyis was used for this purpose. It was anticipated that the factor structure of the instrument based on these responses would closely resemble categorization of the items across the motivational themes suggested by Lortie (1975) and Joseph and Green (1986).

Sample

The sample (n = 255) included 188 (74%) preservice teachers and 67 (26%) inservice teachers. Subjects were voluntarily recruited from graduate and undergraduate education classes at a selected university in the southern United States. Undergraduate students were asked to participate only if they were planning to enter teaching. Graduate students were asked to participate only if they had teaching experience or if they were currently planning to become teachers. Those who had teaching experience were asked to indicate the number of years of experience they had in the field of education.

Eighty-four percent (n = 214) of the respondents were females. As to ethnicity, 227 (89%) persons indicated Caucasian, 23 (9%) indicated African American, and five (2%) indicated other. The majority (n =145--57%) of the respondents were single. The mean age for the sample was 28.1 (SD = 8.8), and of those 67 having teaching experience, the mean number of years of experience was 8.3 (SD = 6.7). Respondents were asked to identify their major field within education based on the type of students with which they were working or

planned to work. Forty-two percent (n =108) indicated elementary, 38% (n =98) indicated secondary, 12% (n =30) indicated special education, and 6% (n = 16) indicated some other group.

Methodology

All volunteers were asked to complete the OTS using a five-point Likert response format for each of the 58 items. To minimize data coding errors, responses were placed on opti-scan answer sheets. Response options ranged from "strongly disagree" (1) to "strongly agree" (5). Respondents were assured anonymity of their responses and were asked not to put their names on the answer sheets.

OTS responses of the 255 subjects were subjected to a principal components factor analysis using the SPSSx FACTOR procedure. Although orthogonal factors are generally easier to interpret, Pedhazur and Schmelkin (1991) advocate that the factor analyst routinely examine both obliquely- and orthogonally-rotated results in an effort to find the most interpretable solution; hence both types of rotation were employed. Specifically, the varimax procedure was employed for the orthogonal rotations and the direct oblimin procedure was employed for the oblique rotations.

Results

The initial factor analysis run indicated that there were 16 factors with eigenvalues greater than unity. An analysis of the "scree" plot (Cattell, 1966) of the eigenvalues indicated that there was an initial break between Factors II and III, with a secondary flattening out of the values somewhere between Factors IV and IX. Factor solutions specifying from five to eight factors were attempted. In all cases the extracted factors were rotated both orthogonally

and obliquely. In the seven- and eight-factor solutions, the last one to two factors were so poorly defined (i.e., few to no marker items for the factors) that these solutions were considered inapproprite representations of the variables. Of the remaining three solutions (four-, five-, and six-factors), the six-factor orthogonally-rotated solution most clearly resulted in "clean" factors (i.e., the majority of items were highly correlated with only one factor). In addition, most of the items were highly correlated with at least one of the factors for this solution. The obliquely-rotated six-factor solution was deemed a poor representation of the items as the inter-factor correlations were relatively small and as the nature of the emergent factors was difficult to decipher.

The orthogonally-rotated factor matrix for this solution is presented in Table 1. Each factor had an adequate number of marker variables and the commonness of theme across the items associated with each factor made it relatively easy to name the factors. The text of the OTS items is presented in Appendix A.

INSERT TABLE 1 ABOUT HERE

Factor I was most clearly identified by items identifying career motivations based on a sense of personal security and the wishes or desires of others. These items reflect both the psychological security and significant other themes as proposed by Joseph and Green (1986). The "security" oriented items deal with motivations for selecting teaching based on the notion taht it is relatively easy to prepare to become a teacher or on the perceived psychological comfort of the school environment. Interestingly, the "significant other" items (i.e., Items 10

and 45) could be interpreted to more generally reflect security issues since selecting teaching based on the advice of a parent or a trusted friend could cause one to feel more secure. Hence, the first factor was named "security-based orientations."

Items most clearly correlated with Factor II included various expressions of the respondents' desire to perform a worthwhile service in their making their choice to become a teacher. The concept of performing a service for the society in general or for students more particularly is prevalent in these items. This rather altruistic orientation for selection of teaching as a career is consistent with Lortie's (1975) "service" theme. Hence the factor was named "service-based orientations."

Factor III was defined by items expressing career selection motivations related to a desire to work with children. The factor seems to be reflective of Lortie's (1975) "interpersonal" theme, i.e., the desire to teach based on a fondness for and a desire to be involved with children. Consequently, Factor III was named "interpersonal-based orientations."

Factor IV's factor space was most heavily saturated by items related to the view of teaching as creative and rewarding work, consistent with Joseph and Green's (1986) "stimulation" theme. The factor was therefore named "stimulation-based orientations."

The fifth factor was defined by items dealing with material benefits received by teachers and with the convenience of the teacher's work schedule. Since Lortie's (1975) "material benefits" and "time compatibility" themes are reflected in the content of these items, Factor V was named "benefit- and convenience-based orientations."

Finally, Factor VI's marker items reflect teaching motivations based on an individual's

desire to remain associated with the schooling process considering that schools are perceived by some to be likely to be places where one can be successful as compared to other workplaces with which the individual is more unfamiliar. This is in essence the "continuation" theme proposed by Lortie (1975). Thus, the factor was named "continuation-based orientations.

In sum, it would appear that the OTS is worthy of additional refinement. The foregoing analyses offer at least initial support for its construct validity, giving it promise as a useful tool when conducting research on teacher career motivation. The instrument could be potentially useful as one of many tools used for this purpose.

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Table 1
Orthogonally-Rotated Factor Matrix

	FACTOR I	FACTOR II	FACTOR III	FACTOR IV	FACTOR V	FACTOR VI
OTS1	-.16816	.23476	.68449*	.07233	.04798	-.05295
OTS2	-.32472	.39763	.40069*	-.07082	.28519	-.11175
OTS3	-.28729	.24064	.18297	.18385	.33502	-.10601
OTS4	.05970	.13702	.04926	-.01303	.67741*	.12345
OTS5	.21014	.13477	-.03597	.01307	.70005*	.09823
OTS6	.13069	.03796	.19279	.15234	.59894*	-.00750
OTS7	.04089	.31412	.35600	-.15803	.52064*	-.07264
OTS8	-.08478	.53670*	.36042	-.22586	.25624	-.18658
OTS9	.20024	.11662	.30925	.19428	-.00780	-.15030
OTS10	.57740*	-.15375	.03981	-.04927	.13739	.08976
OTS11	.69858*	.01274	-.12138	.12494	.12282	.03500
OTS12	.15374	.26595	.49988*	.18035	.27598	-.11031
OTS13	.44777*	.10636	-.17557	.03511	.08148	.31752
OTS14	-.11928	.41288*	-.12497	.31224	.20041	-.16809
OTS15	-.01976	.32166	-.36148	.27504	-.08670	.03057
OTS16	.10366	-.00087	.00445	.12729	.18780	.42385
OTS17	.52631*	-.00709	-.14209	-.05840	-.03578	.42496
OTS18	-.38425	.33014	.42656*	.21458	.04869	-.18922
OTS19	.36869	-.09803	.38676	.07716	.18694	.14408
OTS20	.20218	.49808*	.11505	.00401	.10574	.02482
OTS21	.65171*	.13944	-.06480	-.01773	.00092	.12047
OTS22	.15092	.59477*	.10248	.07263	.08041	-.02288
OTS23	.10990	-.27565	-.03965	.21989	.47056*	.24804
OTS24	.28157	-.13987	.21638	.37992	.25438	.10965
OTS25	.57420*	-.02928	-.00500	.28497	.14296	.04412
OTS26	-.11160	.21685	.74332*	.06347	.02754	-.04410
OTS27	.01331	.19255	.64831*	.17258	.15563	.07879
OTS28	.18383	-.07862	.31996	.29524	.30985	.22012
OTS29	-.13948	.40642*	.44473*	.20237	-.09918	-.00768
OTS30	-.03078	.66260*	.10685	.20106	.11310	-.10339
OTS31	-.06076	.60160*	.03982	.33127	.01088	.00926
OTS32	-.04049	.53108*	.33104	.04552	-.11856	.07246
OTS33	-.02362	.50527*	.16732	.26985	-.24912	.10804
OTS34	.42216*	.02581	.29978	.17516	-.06862	-.00804
OTS35	.22154	.01737	.19147	.27603	.58085*	.00431
OTS36	.50086*	-.11764	.25319	.11910	.33019	.22885
OTS37	-.00690	.48997*	.32518	.09198	.20242	-.04999
OTS38	.05849	.30638	.23854	.46749*	.05861	-.17267
OTS39	.36636	-.10356	-.05800	.12800	.16112	.09634
OTS40	.31262	.27312	.25166	.27392	-.17839	-.11468
OTS41	-.05625	.48944*	-.01693	.40966*	.09958	-.01868
OTS42	.17815	-.26732	.02035	-.07246	.28961	.53347
OTS43	-.00587	-.17390	-.01862	-.02134	-.01793	.67330
OTS44	-.05057	-.20907	.10450	.01219	.02125	.70152
OTS45	.41531*	.09680	.13606	.14748	.14914	.15155
OTS46	.25276	.05626	-.04431	-.03903	.08304	.49132
OTS47	.42950*	.04372	.07999	.18875	.23202	.23572
OTS48	.31536	.06034	-.05917	.28836	.07463	.34708
OTS49	.21898	.06271	.05497	.51317*	.10321	.23601
OTS50	.18670	.11612	.16306	.53358*	.15380	.25095
OTS51	.28444	.17849	.07465	.61980*	.05672	.03402
OTS52	.50995*	-.00423	-.17447	-.08278	.09372	.49396
OTS53	-.27395	.21671	.08832	.59932*	-.01009	.01114
OTS54	.06913	.13311	.06516	.60560*	.10279	-.18228
OTS55	.26709	.20127	.20862	.49689*	.11233	-.12398
OTS56	.27239	.13461	-.18852	.34456	.46070*	.05297
OTS57	.30801	.20421	-.19291	-.11160	-.11648	.50778
OTS58	.29684	.13408	-.02118	.02683	-.09760	.55503

Note: Factor structure coefficients in excess of |.40| are highlighted (*).

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Appendix A
Items Included in the Orientations for Teaching Survey

1. I decided to enter teaching because I would like to work with young people.
2. I decided to enter teaching because teaching allows me to perform a valuable service of moral worth.
3. I decided to enter teaching because I enjoy being around the school environment.
4. I decided to enter teaching because I will have a chance to make a good salary.
5. I decided to enter teaching because teachers have nice benefits associated with their jobs.
6. I decided to enter teaching because I like the work hours and vacation time.
7. I decided to enter teaching because teaching gives me a chance to help the less fortunate.
8. I decided to enter teaching because teaching gives me an opportunity to help students gain a sense of achievement and self worth.
9. I decided to enter teaching because teaching gives me a chance to "pay back" the good teachers I have had.
10. I decided to enter teaching because my parents felt that teaching would be a good career for me.
11. I decided to enter teaching because teaching gives me an opportunity to be in authority.
12. I decided to enter teaching because teaching allows me to experience the love and respect of children.
13. I decided to enter teaching because teaching is a relatively non-competitive occupation.
14. I decided to enter teaching because I have an affection for a particular subject matter.
15. I decided to enter teaching because I was dissatisfied with work I had done in other fields.
16. I decided to enter teaching because it is less expensive to prepare to teach than to prepare for many other fields.
17. I decided to enter teaching because it is an intellectually stimulating occupation.
18. I decided to enter teaching because teaching is a fulfilling and challenging occupation.
19. I decided to enter teaching because I am more comfortable with children than with adults.
20. I decided to enter teaching because I would like to solve some of the problems in the educational system.
21. I decided to enter teaching because I like the thought of being the center of attention in a room of people.
22. I decided to enter teaching because good teachers are needed so badly.
23. I decided to enter teaching because teaching was the best job among those jobs most readily available to me.
24. I decided to enter teaching because teaching is a prestigious occupation.
25. I decided to enter teaching because teaching gives me a chance to be my own boss.
26. I decided to enter teaching because I love children.
27. I decided to enter teaching because I have enjoyed working with children in other contexts, and felt teaching would be just as enjoyable.
28. I decided to enter teaching because teaching was the best job among those I am most suited for.
29. I decided to enter teaching because I feel a personal "calling" to teach.
30. I decided to enter teaching because I have a desire to impart knowledge to other people.
31. I decided to enter teaching because teaching gives me a chance to make an impact on society.
32. I decided to enter teaching because I have always wanted to teach.
33. I decided to enter teaching because teaching is a creative profession.

34. I decided to enter teaching because as a teacher, I can have opportunities to work with extracurricular activities I enjoy.
35. I decided to enter teaching because the time schedule will be compatible with my home situation.
36. I decided to enter teaching because teaching gives me a chance to improve my social standing.
37. I decided to enter teaching because teaching gives me a chance to serve as a positive role model for children.
38. I decided to enter teaching because teaching fits well with my personality.
39. I decided to enter teaching because teaching is a tradition in my family.
40. I decided to enter teaching because people often regard me as a natural teacher.
41. I decided to enter teaching because teaching gives me an opportunity to promote respect for knowledge and learning.
42. I decided to enter teaching because some of my friends majored in education.
43. I decided to enter teaching because I trained for another field but could not get a job.
44. I decided to enter teaching because I trained for another field but did not feel comfortable in that field.
45. I decided to enter teaching because someone I highly respected told me I would be a good teacher.
46. I decided to enter teaching because I was told about a scholarship or tuition reimbursement program available to persons entering teacher education programs.
47. I decided to enter teaching because teaching offers me a good opportunity for career advancement.
48. I decided to enter teaching because teaching can easily lead me to other careers.
49. I decided to enter teaching because teaching can help me develop character.
50. I decided to enter teaching because teachers have a pleasant working environment.
51. I decided to enter teaching because teaching gives me opportunities for leadership.
52. I decided to enter teaching because teaching is an easy job to train for.
53. I decided to enter teaching because teaching gives me a lifelong opportunity to learn.
54. I decided to enter teaching because teaching gives me an opportunity to interact with interesting colleagues.
55. I decided to enter teaching because teaching gives me an opportunity to meet a lot of people.
56. I decided to enter teaching because teaching offers me a job with security.
57. I decided to enter teaching because teaching is a very easy job.
58. I decided to enter teaching because I heard a motivating speech about teaching or was influenced by media material focused on the benefits of teaching.